

## EAST Search History

| Ref # | Hits | Search Query        | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|---------------------|---|------------------|---------|------------------|
|       |      | and S122            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/04 16:21 |
|       |      | S121 near S124      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/04 16:21 |
|       |      | S122 same S121      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/04 16:20 |
|       |      | S122 near S121      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/04 16:19 |
|       |      | S121 near convol\$4 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/04 16:19 |
|       |      | S121 near convol\$4 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/01/04 16:18 |
|       |      | S107 near shift\$3  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/12/28 10:14 |
|       |      | S107 near shift\$4  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/12/28 10:14 |

## EAST Search History

|    |   |  |   |    |     |                  |
|----|---|--|---|----|-----|------------------|
| S1 | 2 | S107 near shift\$4   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:13 |
|    |   | "error image" near (sub-frame or subframe  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 14:55 |
|    |   | near pixel   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 10:17 |
|    |   | S45 near (first and sencond)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 09:20 |
|    |   | "20020075202" "20030011614" "20030020809" "20030076325" "20030090597" "20030133060" "4373784" "4662746" "4811003" "4956619" "5061049" "5083857").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/21 15:32 |
|    |   | "20020075202" "20030011614" "20030020809" "20030076325" "20030090597" "20030133060" "4373784" "4662746" "4811003" "4956619" "5061049" "5083857" "5146356" "5317409" "5386253" "5490009" "5530482" "5557353" "5689283" "5729245" "5742274" "5757355" "5912773" "5920365" "5953148" "5978518" "6025951" "6067143" "6104375" "6118584" "6141039" "6184969" "6219017" "6239783" "6243055" "6313888" "6384816" "6393145" "6522356" "6657603" "6825835").PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/01/04 16:15 |
|    |   | ("7109981").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 12:52 |

## EAST Search History

|    |    |   |   |    |     |                  |
|----|----|---|---|----|-----|------------------|
| S2 | 2  | ("20040201580").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 12:53 |
| S3 | 2  | ("20040257350").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 13:06 |
| S4 | 2  | ("6571224").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 14:09 |
| S5 | 2  | ("5347382").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 14:13 |
| S6 | 22 | ((("4,373,784") or ("4,662,746") or ("4,811,003") or ("4,956,619") or ("5,061,049") or ("5,083,857") or ("5,146,356") or ("5,317,409") or ("5,490,009") or ("5,557,353") or ("5,689,283"))).PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 14:58 |
| S7 | 2  | ("6384816").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 14:16 |
| S8 | 2  | ("20050225570").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 15:07 |
| S9 | 4  | ((("6825835") or ("5742274"))).PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 15:18 |

## EAST Search History

|     |      |                     |   |    |     |                  |
|-----|------|---------------------|---|----|-----|------------------|
| S10 | 2    | ("7030894").PN.     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 15:26 |
| S11 | 2    | ("20040027363").PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 15:45 |
| S12 | 2    | ("20050225570").PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 15:59 |
| S13 | 2857 | (345/204).CCLS.     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |
| S14 | 0    | (345/132).CCLS.     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |
| S15 | 777  | (345/213).CCLS.     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |
| S16 | 0    | (350/4).CCLS.       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |
| S17 | 0    | (350/310).CCLS.     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |

## EAST Search History

|     |     |                 |   |    |     |                  |
|-----|-----|-----------------|---|----|-----|------------------|
| S18 | 0   | (350/355).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |
| S19 | 0   | (350/291).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:00 |
| S20 | 396 | (359/279).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:01 |
| S21 | 124 | (348/790).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:01 |
| S22 | 124 | (348/790).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:01 |
| S23 | 198 | (348/739).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:01 |
| S24 | 100 | (348/761).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:02 |
| S25 | 2   | ("0538253").PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:03 |

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|     |      |                                |   |    |     |                  |
|-----|------|--------------------------------|---|----|-----|------------------|
| S26 | 2    | ("5386253").PN.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:09 |
| S27 | 2    | ("7109981").PN.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:23 |
| S28 | 2    | ("6825835").PN.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/27 14:54 |
| S29 | 2    | ("20030063190").PN.            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:28 |
| S30 | 2857 | (345/204).CCLS.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:28 |
| S31 | 770  | ((345/598) or (345/660)).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:28 |
| S32 | 211  | (345/667).CCLS.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:28 |
| S33 | 108  | (348/129).CCLS.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:28 |

## EAST Search History

|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S34 | 0     | (348/222).CCLS.                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:29 |
| S35 | 377   | (348/581).CCLS.                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:29 |
| S36 | 515   | (348/584).CCLS.                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:29 |
| S37 | 612   | (382/151).CCLS.                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/21 16:31 |
| S38 | 15352 | image adj generating                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/21 16:31 |
| S39 | 1356  | first adj (sub-fram\$3 or subfram\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/21 16:33 |
| S40 | 1173  | second adj (sub-fram\$3 or subfram\$3) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/21 16:33 |
| S41 | 164   | S39 near S40                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/21 16:33 |

## EAST Search History

|     |         |   |   |    |    |                  |
|-----|---------|---|---|----|----|------------------|
| S42 | 2937419 | cente\$4  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/21 16:34 |
| S43 | 6967    | S42 adj pixel   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/21 16:35 |
| S44 | 4       | S42 near S41  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/21 16:36 |
| S45 | 63      | (sub-frame\$3 or subfram\$4) and<br>cente\$3 near pixel | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 09:20 |
| S46 | 0       | S45 and (first and sencond)                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 09:20 |
| S47 | 1086    | spatial\$4 near offset                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 09:21 |
| S48 | 8       | S45 and S47   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 09:34 |
| S49 | 3       | "7109981"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:18 |



## EAST Search History

|     |       |                            |   |    |     |                  |
|-----|-------|----------------------------|---|----|-----|------------------|
| S50 | 2     | ("6121725").PN.            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 09:44 |
| S51 | 21704 | alternat\$5 near displa\$3 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 09:45 |
| S52 | 54    | S47 and S51                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 10:03 |
| S53 | 2     | ("6384816").PN.            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 10:16 |
| S54 | 0     | ("wobb\$05").PN.           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 10:17 |
| S55 | 46555 | wobb\$5                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 13:11 |
| S56 | 18    | S55 near pixel             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 12:54 |
| S57 | 2     | ("20060044278").PN.        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 13:05 |

## EAST Search History

|     |       |                        |   |    |     |                  |
|-----|-------|------------------------|---|----|-----|------------------|
| S58 | 0     | ("centeradaptive").PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 13:05 |
| S59 | 42    | "center adaptive"      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 13:06 |
| S60 | 0     | S59 near multi\$7      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 13:06 |
| S61 | 18    | S55 near pixel         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 13:12 |
| S62 | 2     | ("0000345").PN.        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 13:12 |
| S63 | 80967 | ("345").CLAS.          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 13:12 |
| S64 | 0     | ("l11andl19").PN.      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 13:13 |
| S65 | 241   | S55 and S63            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 13:13 |

## EAST Search History

|     |         |                             |   |    |    |                  |
|-----|---------|-----------------------------|---|----|----|------------------|
| S66 | 0       | S65 and S45                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:13 |
| S67 | 0       | S65 and S59                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:13 |
| S68 | 3263613 | imag\$5                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:18 |
| S69 | 12575   | convolv\$5                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:18 |
| S70 | 26912   | (sub-fram\$3 or subfram\$3) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:19 |
| S71 | 127538  | interpolat\$4               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:22 |
| S72 | 6276    | S68 and S69                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:23 |
| S73 | 81      | S72 and S70                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/26 13:23 |

## EAST Search History

|     |     |   |   |    |     |                  |
|-----|-----|---|---|----|-----|------------------|
| S74 | 48  | S73 and S71   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 15:09 |
| S75 | 22  | ((("4,662,746") or ("4,956,619") or ("5,061,049") or ("5,083,857") or ("5,490,009") or ("5,689,283") or ("5,842,762") or ("5,897,191") or ("5,978,518") or ("6,025,951") or ("6,104,375"))).PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 15:18 |
| S76 | 2   | ("20030063190").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 15:28 |
| S77 | 2   | ("6825835").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 15:31 |
| S78 | 10  | ((("5537256") or ("5572341") or ("5715029") or ("6195125") or ("6219017") or ("6243055"))).PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 16:26 |
| S79 | 735 | (345/660).CCLS.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/26 16:27 |
| S80 | 2   | S79 and center\$3 and S45   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 16:28 |
| S81 | 6   | S79 and (sub-frame or subframe)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 16:30 |

## EAST Search History

|     |         |  |   |    |     |                  |
|-----|---------|--|---|----|-----|------------------|
| S82 | 12      | S79 and (pixel near shifting)              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/26 16:37 |
| S83 | 20      | S79 and (pixel near shift\$5)              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 08:51 |
| S84 | 2       | ("20030020809").PN.                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/27 13:19 |
| S85 | 2683835 | third sub-frame                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 13:19 |
| S86 | 202     | third adj sub-frame                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 13:20 |
| S87 | 17      | (third adj sub-frame) near pixel           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 13:20 |
| S88 | 4567    | "error image"                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 14:54 |
| S89 | 1       | "error image" near (sub-frame or subframe) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 14:55 |

## EAST Search History

|     |       |   |   |    |     |                  |
|-----|-------|---|---|----|-----|------------------|
| S90 | 57    | "error image" near pixel                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:00 |
| S91 | 3     | convolv\$4 near (sub-frame or subframe) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:25 |
| S92 | 10705 | SLM                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:25 |
| S93 | 10705 | "SLM"                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:25 |
| S94 | 3233  | "SLM" near "spatial light modulator"    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:28 |
| S95 | 0     | S94 near convolv\$5                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:29 |
| S96 | 2     | S94 with convolv\$5                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/27 15:35 |
| S97 | 2     | ("5061049").PN.                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/27 15:48 |

## EAST Search History

|          |       |                           |   |    |     |                  |
|----------|-------|---------------------------|---|----|-----|------------------|
| S98      | 2     | ("6384816").PN.           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/27 15:48 |
| S99      | 98    | convolv\$4 and sub-frame  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 09:57 |
| S10<br>0 | 12557 | convolv\$4 anearsub-frame | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 09:57 |
| S10<br>1 | 3     | convolv\$4 near sub-frame | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:02 |
| S10<br>2 | 3     | convolv\$7 near sub-frame | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:03 |
| S10<br>3 | 0     | convolv\$7 near subframe  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:03 |
| S10<br>4 | 227   | convolv\$7 near pixel     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:03 |
| S10<br>5 | 81100 | ("345").CLAS.             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/28 10:03 |

## EAST Search History

|          |     |   |   |    |     |                  |
|----------|-----|---|---|----|-----|------------------|
| S10<br>6 | 0   | ("I6andI7").PN.                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/28 10:03 |
| S10<br>7 | 40  | S104 and S105                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:13 |
| S10<br>8 | 0   | S104 near S105                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:04 |
| S10<br>9 | 0   | S104 with S105                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:04 |
| S11<br>0 | 21  | S107 and shift\$4                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:13 |
| S11<br>1 | 0   | S107 and upsamp\$6                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:14 |
| S11<br>2 | 195 | upsampl\$6 and shift\$4 and pixel<br>and convol\$6  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 10:15 |
| S11<br>3 | 15  | upsampl\$6 near shift\$4 and pixel<br>and convol\$6 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/12/28 13:19 |



## EAST Search History

|          |        |                      |   |    |     |                  |
|----------|--------|----------------------|---|----|-----|------------------|
| S11<br>4 | 2      | ("20040207616").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/28 16:29 |
| S11<br>5 | 0      | (2003/0063190).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/12/28 16:29 |
| S11<br>6 | 2      | ("20030063190").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/03 09:00 |
| S11<br>7 | 2      | ("20030063190").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/03 09:58 |
| S11<br>8 | 2      | ("20030020809").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/03 10:55 |
| S11<br>9 | 2      | ("6650704").PN.      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/03 10:56 |
| S12<br>0 | 2      | ("6650704").PN.      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/04 16:18 |
| S12<br>1 | 280887 | error and image      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/01/04 16:18 |

## EAST Search History

|          |       |                  |   |    |    |                  |
|----------|-------|------------------|---|----|----|------------------|
| S12<br>2 | 39936 | convol\$4        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:19 |
| S12<br>3 | 4124  | S122 and S121    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:19 |
| S12<br>4 | 2287  | convolve         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:20 |
| S12<br>5 | 1251  | "error filter"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:21 |
| S12<br>6 | 86    | S125 and S122    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:21 |
| S12<br>7 | 7006  | error near image | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:22 |
| S12<br>8 | 39    | S127 and S125    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:25 |
| S12<br>9 | 0     | S128 and S124    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/01/04 16:25 |

## EAST Search History

|          |    |  |   |    |     |                  |
|----------|----|--|---|----|-----|------------------|
| S13<br>0 | 21 | S124 and S127  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/01/04 17:48 |
| S13<br>1 | 2  | ("20030063190").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/05 11:15 |
| S13<br>2 | 2  | ("6650704").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/05 14:32 |
| S13<br>3 | 2  | ("20030020809").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/05 15:35 |
| S13<br>4 | 8  | ((("6600514") or ("5742274") or<br>("5729245") or ("20040207592"))).<br>PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/05 15:45 |
| S13<br>5 | 2  | ("5581484").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 08:35 |
| S13<br>6 | 22 | ((("4,373,784") or ("4,662,746") or<br>("4,811,003") or ("4,956,619") or<br>("5,061,049") or ("5,083,857") or<br>("5,146,356") or ("5,317,409") or<br>("5,490,009") or ("5,557,353") or<br>("5,689,283"))).PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 08:49 |
| S13<br>7 | 4  | ((("5,386,253") or ("6,657,603"))).<br>PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 09:03 |

## EAST Search History

|          |    |   |   |    |     |                  |
|----------|----|---|---|----|-----|------------------|
| S13<br>8 | 4  | ((("5,719,594") or ("6,340,994") or ("4,442,454"))).PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 09:06 |
| S13<br>9 | 14 | ((("5,530,482") or ("5,729,245") or ("5,742,274") or ("5,757,355") or ("6,825,835") or ("20030011614") or ("20030133060"))).PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 09:19 |
| S14<br>0 | 22 | ((("5,912,773") or ("5,920,365") or ("5,953,148") or ("5,978,518") or ("6,025,951") or ("6,067,143") or ("6,104,375") or ("6,118,584") or ("6,141,039") or ("6,184,969") or ("6,219,017"))).PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 09:26 |
| S14<br>1 | 18 | ((("6,239,783") or ("6,243,055") or ("6,313,888") or ("6,384,816") or ("6,393,145") or ("6,522,356") or ("20030020809") or ("20030076325") or ("20030090597"))).PN.                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 09:47 |
| S14<br>2 | 2  | ("6,125,480").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 11:30 |
| S14<br>3 | 2  | ("6650704").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 13:20 |
| S14<br>4 | 2  | ("20040201580").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/01/08 13:20 |